

# Going global on eco-efficiency

**- Finland's initiative towards a new generation  
of environmental policy**

**Discussion paper**  
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Globalisation is currently radically reshaping our economies and environmental policies. The world's major emerging markets are increasingly steering global developments. China, India, other Asian regions and South America will play an increasing role in shaping the flows of raw materials in the near future.

The global demand for energy is expected to go on increasing, and transport volumes are growing so fast that many of the improvements brought about by new technologies are being partly or fully cancelled out. Globalisation will change the structure of our industries, lifestyles and cultures. It will also change the way policies are made, as the internal and external dimensions of our environmental policies become more closely interlinked.

Debates on globalisation often fail to pay sufficient attention to the causes and wider effects of the consequent environmental impacts. Our consumption affects the environment and people's lives on other continents, since we are using more and more resources from other regions of the world. Impacts of the global expansion of trade, such as the outsourcing of resource-intensive production and the ever wider movements of commodities around the world, call for the strengthening of global policy making and governance, as well as reductions in harmful impacts throughout product life-cycles.

Many of Europe's production systems, consumption patterns and environmental policy standards can be used as benchmarks in other parts of the world. Notable examples include vehicle emission standards, best available technologies, and the Auto-Oil programme. The choices that will soon be made by countries like China and India concerning energy consumption, energy policies and the use of natural resources will be crucial for the whole world. In many respects we are now at a crossroads, with the opportunity to change the future prospects of the global environment if the right choices can be made.

Increasing competition can easily give rise to conflicts between short-term economical interest and long-term environmental goals. Creating a level playing field for European stakeholders and their global counterparts should be a key issue in environmental policy-making. The goal should not be to settle for the lowest common denominator, but to apply the highest possible standards everywhere. The European Union should show leadership by more dynamically integrating environmental considerations into its foreign policies and development policies, particularly where trade issues and poverty reduction strategies are concerned.

The guiding principle should be that the sustainable use of natural resources and responsible ecosystem stewardship represent both first-rate economics, and vital prerequisites for social welfare.

The Millennium Ecosystem Assessment and the European Environment Agency's Environmental Outlook both point out that many of today's environmental problems are deeply rooted in the ways we use the land, in our economic structures, and in our whole way of life. Major challenges include the rising demand for energy, our continuing dependency on fossil fuels, and the steady depletion of vital natural resources.

# 1 A vision for the EU in a global world

The ongoing increases in resource use and consumption can easily cancel out any progress made through technological improvements and environmental policies. Over the past 40 years the EU 15 have seen rapid increases in labour productivity, but improvements in material and energy productivity have lagged.

Present environmental policies largely concentrate on reducing the most harmful impacts, and it can be argued that this only serves to help us find more acceptable ways to go on using more and more material resources. Although today's policies do give us leeway to solve urgent environmental problems, this is clearly still only a question of buying time. We may ultimately be forced to pay an increasingly higher price for our present inaction, and this could place an intolerable burden on future generations, making it more difficult than ever to achieve the EU's objectives on social progress, health and environmental protection.

Issues such as the rapidly changing international division of labour, the ongoing disruption of ecosystems and the rapid depletion of non-renewable natural resources all highlight the importance of building up a new vision and long-term strategic thinking. Such visions must particularly strengthen and exploit the synergies between environmental and economic policies.

The revised strategy on sustainable development calls for "a concrete and realistic vision of the EU on its way to sustainable development over the next 50 years". To match this vision, the Commission and Member States should coordinate their efforts on foresight studies, and create a long-term vision for the EU's environmental policy. The new vision must include new ways to effectively break the linkage between the use of natural resources and the consequent impacts on the climate, biodiversity and ecosystems. We should also consider how resource-efficiency targets could be set at European and global level

Such a vision should also seek to answer the following crucial questions:

- How can we build effective strategies to support the necessary transition towards an eco-efficient society that fully respects the carrying capacity of each region and the whole planet?
- How can we break the linkages between material flows and their consequent harmful impacts on the climate, biodiversity and ecosystems?
- How can we facilitate a transition from environmental policies for the EU internal market towards truly global environmental policies?
- How can environmental issues be better integrated into trade and development policies?
- How can we ensure that environmental issues are better integrated into planning, decision-making and funding at the global, EU, regional and national levels?

The new vision should look beyond traditional policy-making practices and have a balanced approach, acknowledging that the environment has a value in its own right. A well-defined vision could also help to clarify how existing policies could all be made to fit together coherently.

This discussion paper is largely based on the ongoing strategic work of the EU, including the revised Strategy on Sustainable Development, the Lisbon Strategy, the mid-term review of the 6th Environmental Action Programme, the Strategy on Natural Resources, and the Biodiversity Communication.

This discussion paper aims to give ideas and input from an ecological perspective, in order to build up linkages and synergies between these various strategies, and make further improvements in them.

1.1

## **”Less is more ” - Balancing resource use and maintaining ecosystems**

Energy efficiency and accessibility have been very much on the agenda, but the efficient use of other natural resources and materials through whole life-cycles has received much less attention. The quantities and qualities of different material flows will nevertheless be crucial with regard to issues such as combating climate change and biodiversity loss, as well as preventing waste, and reducing harmful pollution. This means that there must be a clear focus on reducing the environmental impact per unit of resource and energy use.

Improving material and energy efficiency can boost competitiveness and create jobs while also protecting the environment and reducing dependence on imported resources. This makes it vital to mainstream resource efficiency into different sectors and policies - and into the core of the debate about the future of Europe. Without this objective the goals of the Lisbon Strategy cannot be reached.

The EU Strategy on Sustainable Development calls for an action plan on sustainable consumption and production. Although we have been successful in limiting emissions, in many fields current consumption trends and increasing resource use are outweighing any benefits achieved through technological improvements and environmental policies. It is still important to control emissions from various sources, but in future the main focus should be on promoting resource efficiency throughout worldwide product chains.

The key objectives in this action plan should include:

- Improved resource efficiency, aiming to bring resource use and consumption patterns within regional and global carrying capacities
- The adoption of life-cycle approaches
- The wider and more effective use of existing pro-active policy tools that promote cleaner production and products, including eco-labels, environmental management systems, white certificates, producer responsibility, funding for eco-innovations, and sustainable public procurement policies
- Shifts in consumption towards goods and services with lower environmental impacts
- Better definitions of the roles and responsibilities of different actors and stakeholders

To make such profound changes, experts and scientists call for the use of economic instruments as well as realistic long-term policy objectives and targets. A well designed action plan on sustainable consumption and production would be a suitable platform for the further elaboration of concrete proposals for material and energy efficiency, for the launching of new studies and projects to identify opportunities to improve eco-efficiency, and for the formulation of new strategies designed to promote best solutions and practices in key sectors and product groups (such as “top-runner” model).

Businesses, the authorities and research institutes could develop such strategies through structured dialogues designed to set out more concrete ways of achieving long-term improvements in material and energy efficiency. New solutions, innovations and policy instruments must be sought jointly with a view to achieving such improvements.

One promising way to promote innovations is technology procurement. This practice inspires both purchasers and suppliers to seek the most cost-effective environmental technologies and solutions. The action plan could also motivate Member States and the EU to set indicative targets for funding on research and development related to eco-innovations.

Information technologies and other new technologies provide huge potential for the dematerialisation of production and consumption. However, it has become increasingly clear that the existence of ever-more efficient industrial processes, cleaner and more advanced technologies, or greener and more ethical products, cannot alone ensure that consumers will choose to buy these environmentally sounder products, or that the scale of material throughput will remain within ecologically sustainable limits. Purely technological approaches fail to address the crucial dimension of human choice with regard to the adoption of sustainable technologies and the abandoning of unsustainable consumption patterns. Consumers must therefore be provided with still more information and encouraged through economic instruments to make sustainable choices.

Biodiversity policies such as the Natura 2000 network and strict measures to protect endangered species have made the EU a global forerunner in protecting biodiversity. These approaches should be continued, but such measures alone will not be sufficient in the future.

New approaches are needed to protect biodiversity and to safeguard natural resources and ecosystems. The ecosystem services approach sees biodiversity as supporting the economy, rather than hindering it. In the future we need to go even further, and fully take into account the economic benefits of such natural features as clean air, pure water and protected areas. The integration of the ecosystem services approach and EU biodiversity targets into spatial planning and all other policy areas should be a key element of new environmental policy thinking.

Decision-makers must fully account for all ecosystem services, not just those that can be bought and sold on markets. Important steps include paying a fair price for actions that effectively protect ecosystem services (such as emission reductions and action taken to safeguard natural habitats and species), and correspondingly penalising emissions and other actions that weaken ecosystem services.

On a global scale, it is vital to continue working towards the establishment and effective management of a coherent global network of marine and terrestrial protected areas. The EU should further strengthen its leading role in this respect. Future challenges lie in promoting sustainable uses of the land and the seas, so as to create effective workable linkages with local and regional socio-economic environments. Biodiversity issues and the ecosystem services approach must also be integrated into EU external assistance policies.

**Key question: How can crucial issues such as material efficiency, energy efficiency and the need to preserve ecosystems be brought into the core of the debate about the future of Europe?**

- What kinds of strategies and targets should be defined for resource efficiency?
- How can we reduce the harmful environmental impacts caused outside the EU by our high levels of consumption in Europe?
- Can the EU contribute to the global biodiversity target for 2010 by promoting more ecologically sustainable trade patterns?
- Could the protection of biodiversity be enhanced by using more economic instruments, incentives and market-based approaches?

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## **A 'One Planet' environment policy**

Globalisation and various warning signs around the world indicate the need for a significant shift in international environmental policies. International environmental governance should be strengthened in the broadest possible context, to address issues like the lack of coordination of environmental activities within the UN system, and worldwide action on environmental issues by UN organisations, agencies, funds and programmes, particularly in relation to the Millennium Development Goals.

The EU should actively lobby for the creation of a permanent international environmental organisation to strengthen international environmental governance. A United Nations Environment Organisation would help countries to manage the impacts of globalisation by giving more political weight to international environmental action. It would also encourage developing countries to devise and implement their own national environment policies. The renovation of the whole global environmental governance structure should also improve coherence and enhance synergies between the various existing multilateral environmental agreements without compromising their legal autonomy.

Another constructive way to promote the sustainable management of resources is to set up an expert panel, as proposed in the Commission's communication on natural resources. This panel could promote efficient ways to use resources, encourage the spread of technical know-how, and co-ordinate guidance on such issues. The panel would have an important role in assessing the scientific, technical and socio-economic information relevant to the understanding of the consequences of various material flows. Such a panel might be comparable to the International Panel on Climate Change (IPCC), with its role of informing and aiding policymakers with regard to decision-making.

On a national level, member states could consider setting macro-economic goals for material and energy efficiency similar to those already set in Germany and Japan. Traditional ways of measuring wealth and well-being, such as GDP, should also be challenged from the perspective of sustainable development.

Complex environmental problems and new global challenges also call for new types of policy-making and decision-making within the EU's internal environmental policy arena. Many of the challenges we face today cannot be solved unless people are enabled to make more prudent and sustainable choices in their various organisational roles and in their everyday lives. In promoting resource efficiency and in changing our patterns of consumption questions related to economic incentives and ways to incorporate environmental costs into prices become even more crucial.

With the notable exception of emissions trading, a shift towards environmental policies based on economic incentives has not yet materialised at EU level, despite the emphasis put on market-based instruments in previous environmental action programmes. Individual member states have been more pro-active in the use of taxation and other economic instruments, but these national initiatives are often hampered by the rules of the EU internal market. More extensive use of such instruments will only be possible if a supportive framework is established at EU level, but this process is in turn hindered by the requirement for unanimity on environmental fiscal measures.

Economic incentives designed to favour products or activities with lower environmental impacts, the phasing-out of environmentally damaging subsidies, and the establishment of market mechanisms to support biodiversity might all be expected to increase prices. However, in most cases the higher costs to consumers could be countered by using the resulting revenue to reduce income taxes or non-wage labour costs. Reducing taxes on investment in labour and capital would help to improve Europe's competitiveness, and also create vital preconditions for a more knowledge-based economy.

To mainstream environmental issues and sustainability into different sectors, impact assessment procedures should be enhanced to ensure that they balance economic, social and environmental costs and benefits, also taking into account the costs of inaction. Strategic environmental assessments and other possible ways to integrate environmental considerations into decisions should also be explored. At the very least, the use of impact assessments should be further expanded to ensure they form part of all the relevant sectors of Community legislation. There should be a continuing focus on the integration of environmental issues into the financial sector, insurance policies and various Community financing programmes over the coming years.

There is plenty of evidence that good environmental management and regulation do not impede overall competitiveness and economic development. On the contrary, properly designed environmental regulation can reduce costs, create lucrative markets for environmental goods and services, and drive innovation. EU legislation will thus continue to be the basis for environmental policy, supported by extended socio-economic and environmental impact assessments.

But we still have a long way to go also in this respect, particularly considering that so many member states have failed, at least on occasions, to comply with various environmental commitments or directives. Enforcing and applying different laws might be technically attractive, but problems will remain because of the devolved character of such legislation, the lack of resources, lack of co-operation, or the inability of national and regional policy makers to integrate EU environmental laws into everyday practical policies. There is an urgent need for more active enforcement. Member States should increasingly use policy assessment tools to make the best possible use of the flexibility allowed by EU legislation.

At present environmental directives and strategies are generally implemented in a top-down fashion. This guarantees a level of playing field for enterprises, citizens and organisations across Europe, but does not always encourage alternative local initiatives, best practices or innovations. Framework directives will not necessarily solve these problems. The detailed criteria and guidelines applied in implementing the various directives do not give sufficient freedom for the adoption of proactive and cost-effective approaches suited to specific circumstances.

It is vital to create a suitable climate for best practices, and to encourage local approaches instead of trying to solve all problems using the same solutions. An appropriate combination of top-down and bottom-up approaches is needed in regulation.

**Key question: What kinds of frameworks and incentives should we establish to promote more effective decision-making?**

- What are the best ways to control the ecological impacts of globalisation?
- Should we consider enhanced co-operation within the EU to help with the introduction of economic instruments?
- How can legislation be effectively enforced?
- How can top-down and bottom-up approaches be optimally combined in legislation?
- How can we ensure that impact assessments fully integrate environmental considerations?